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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/741,956

12/20/2000

Hau Lee

DT-0003

7270

36088

7590

06/10/2010

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EXAMINER

ROBINSON BOYCE, AKIBA K

ART UNIT

PAPER NUMBER

3628

MAIL DATE

DELIVERY MODE

06/10/2010

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* HAU LEE,  
KRISHNA VENKATRAMAN,  
MICHAEL NEAL,  
SUZANNE VALENTINE, and  
PHIL DELURGIO

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Appeal 2009-012017  
Application 09/741,956  
Technology Center 3600

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Decided: June 9, 2010

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Before MURRIEL E. CRAWFORD, HUBERT C. LORIN, and  
ANTON W. FETTING, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

Hau Lee, et al. (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1-4 and 6-11. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

## SUMMARY OF DECISION

We REVERSE.<sup>1</sup>

## THE INVENTION

Claim 1 is illustrative.

1. A computer-implemented method for creating a product sales model for each of a plurality of products, the method being implemented as a plurality of program instructions stored in a computer readable storage medium in a computer system, said method comprising the steps of:

creating, using the computer system, a plurality demand groups, wherein each demand group is a user defined group of highly substitutable products, further wherein each demand group is a set of, at least one product and at least one of the demand groups is, a set of at least two products;

creating, using the computer system, a demand group sales model as a function of price wherein said demand group sales model models sales for each demand group, further wherein said demand group sales model provides a single

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<sup>1</sup> Our decision will make reference to the Appellants' Appeal Brief ("Br.," filed Jul. 18, 2008) and the Examiner's Answer ("Answer," mailed Oct. 17, 2008).

model for modeling sales of all of the products in each said demand group;

creating, using the computer system, a market share model wherein said market share model determines the fraction of the sales of each demand group comprised by each product; and

creating, using the computer system, said product sales model by combining said demand group sales model and said internal market share model, wherein said product sales model models sales for individual products, further wherein said product sales model combines said demand group sales model and said internal market share model to produce said product sales model for individual products.

### THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Garg	US 6,044,357	Mar. 28, 2000
Ouimet	US 6,078,893	Jun. 20, 2000
Chavez	US 6,684,193 B1	Jan. 27, 2004

The following rejections are before us for review:

1. Claims 1 and 6 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ouimet and Garg.
2. Claims 3, 4, and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chavez and Ouimet.
3. Claims 2 and 7-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ouimet, Garg, and Chavez.

## ISSUE

All the claims require creating “demand groups” and models based on the demand groups, such as a demand group sales model. The issue is whether that is disclosed, as the Examiner has argued.

## FINDINGS OF FACT

Col. 5, ll. 45-64 of Ouimet is reproduced below:

The user first selects a consumer demand model to be used in the analysis. In a preferred embodiment, the user will be provided with a database of predefined demand models from which to choose. It is also contemplated, as illustrated in FIG. 5, that the user will be given the option of defining a new demand model, tailored to meet the user's specific needs. Although any demand model may be used in the first preferred embodiment of the present invention, it is assumed that it conform to the general form

$$q-q(\{X\};\{D\}),$$

where {D} are the demand parameters, and {X} is the set of all variables for all items. Notice that in general, the sales of one item can depend upon the parameters of all the other items. The reason for this is that the demand for a single item can and usually does depend upon the demand for all other items. This can in general lead to a system of coupled equations that describe the demand for each item in a given group. The variables that affect the demand can include, but is not limited to, price, sales history, promotional activity, weather conditions, location, currency exchange rate, inflation rate, etc.

Col. 15, ll. 5-16 of Chavez is reproduced below:

The present system can be modeled to account for elastic interactions. For instance, certain complex situations might produce a situation where for more of a product sold, less revenue is derived. The revenue coefficient is therefore not a constant, but becomes a function of the number of units sold. Hence, it becomes important to model the value function in a general manner to account for interactive effects between the refinements and the resources that comprise that particular model.

### ANALYSIS

To establish a prima facie case of obviousness for the subject matter of independent claim 1, the Examiner relies on col. 5, ll. 45-64 of Ouimet as prior art disclosure for the claim limitation “demand groups.” *See supra*. Answer 3. But that passage discusses “demand models”, not “demand groups.” Claim 1 requires a plurality of “demand groups” and defines them as “a user defined group of highly substitutable products, further wherein each demand group is a set of, at least one product and at least one of the demand groups is, a set of at least two products.” Ouimet does not disclose “demand groups” as the Examiner has argued. What Ouimet discloses, are equations representing “demand models” for individual items. While Ouimet discloses coupling equations for items affected by other items in a group (col. 5, l. 63), the equations are still “demand models” for items and not “demand groups” as claim 1 defines them. Accordingly, a prima facie case of obviousness for claim 1 and the claims depending therefrom has not been established in the first instance.

To establish a prima facie case of obviousness for the subject matter of the other independent claim 3, the Examiner relies principally on Chavez. Unlike claim 1, claim 3 defines a “demand group” simply as “a user defined group of high substitutable products.” Nevertheless, neither Chavez nor Ouimet disclose “demand groups.” But, similar to claim 1, claim 3 further calls for creating a “demand group sales model”. In that regard, Chavez is cited as showing a “demand group sales model”. The Examiner relies on col. 15, ll. 6-14. *See supra*. Answer 7-8. However, the cited passage discloses models accounting for interactive effects between, for instance, revenue and the number of products sold. Claim 3 requires something different: *i.e.*, a “demand group sales model as a *function of price*, wherein said demand group sales model provides *a single model for modeling sales of all of the products in each of said demand group*.” Since neither Chavez nor Ouimet disclose “demand groups,” they do not further disclose a “demand group sales model” as claimed. Accordingly, a prima facie case of obviousness for claim 3 and the claims depending therefrom has not been established in the first instance.

## DECISION

The decision of the Examiner to reject claims 1-4 and 6-11 is reversed.

## REVERSED

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Application 09/741,956

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